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SEARCH REQUEST FORM

Scientific and Technical Information Center

10/660209

Requester's Full Name: Kim Lewis Examiner #: 72430 Date: 3/22/05
Art Unit: 3743 Phone Number 30-24796 Serial Number: _____
Mail Box and Bldg/Room Location: D44 Results Format Preferred (circle): RAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: MULTILAYER CONDUCTIVE APPLIANCE HAVING WOUND

Inventors (please provide full names): A Bara Flick HEALING AN

Earliest Priority Filing Date: 9/22/95 ANALGESIC

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number. PROPERTY

Please note the attached claims.

Include a search of the foreign databases
highlight - tag resp H. Include inventor search in
results.

Please concentrate on "passively altering the pathology's electrical
potential".

Rec'd 3/22/05 10:05a 28.

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>EMONY DAMICO</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: <u>2-3520</u>	AA Sequence (#) _____	Dialog <u>X</u> <u>1815.85</u>
Searcher Location: <u>RND 8A74</u>	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>3/31/05 415P</u>	Bibliographic <u>X</u>	Dr.Link _____
Date Completed: <u>4/1/05 415P</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>225m</u>	Fulltext <u>X</u>	Sequence Systems _____
Clerical Prep Time: <u>0</u>	Patent Family _____	WWW/Internet <u>X</u> <u>SCINUS/SCIENCE DIRECT</u>
Online Time: <u>225m</u>	Other _____	Other (specify) _____



STIC Search Report

EIC 3700

STIC Database Tracking Number: 148479

TO: Kim Lewis
Location: RND 7d51
Art Unit: 3743
Monday, April 04, 2005

Case Serial Number:

From: Emory Damron
Location: EIC 3700
CP2-2C08
Phone: 305-8587

Emory.Damron@uspto.gov

Search Notes

Dear Kim,

Please find below an inventor search in the bibliographic and full-text foreign patent files, as well as keyword searches in the patent and non-patent literature files, both bibliographic and full text.

References of potential pertinence have been tagged, but please review all the packets in case you like something I didn't.

Of those references which have been tagged, please note any manual highlighting I've done within the text of the document(s).

In addition to searching on Dialog, I also searched Google.com, EPO/JPO/Derwent, Scirus and ScienceDirect.

There are a few decent references contained herein, but I'll let you determine how useful they may be to you.

Please contact me if I can refocus or expand any aspect of this case, and please take a moment to provide any feedback (on the form provided) so EIC 3700 may better serve your needs. Good Luck!

Sincerely,

Emory Damron

Technical Information Specialist

EIC 3700, US Patent & Trademark Office

Phone: (571)272-3520/Fax: (571) 273-0047

Emory.damron@uspto.gov





STIC Search Results Feedback Form

EIC 3700

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

John Sims, EIC 3700 Team Leader
571-272-3507 RND 8 B35

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: 3743 Example: 3730

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC3700 RND 8B31



Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	143097	(electric or electrical or conducting or conductive) near5 potential	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:03
L2	3583702	bandage or dressing or compress or substrate or covering or pad	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:03
L3	2529715	fiber or fibre or gauze or mesh or knit or netting or cloth or textile or weave or woven or nylon	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:04
L4	2743419	resistive or resistance or ohm or ohms or ohmic or ohmage	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:05
L5	1090889	(1 4) and (2 3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:06
L6	54226	5 and ("602"/\$.ccls. or "604"/\$.ccls. or a61f\$ or a61l\$ or a61k\$ or a61m\$ or a61n\$)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	<i>Pat Lit</i> <hr/> <i>EAST</i> <hr/> <i>EDITED,</i> <i>Hi-Lited</i> <i>DOX</i> <hr/> <i>www.eis</i>
L7	152875	(2 3) with (laceration or pathology or pathologies or scrape or injury or injuries or contusion or fracture or wound or abrasion or bruise or scab or sore or lesion or ulcer or chancre or rash or sepsis or septic or infection or burn or amputation)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	
L8	875377	(2 3) with (metal or metallic or nonmetal or conductive or nonconductive or silver or ag or argent)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	
L9	10795	6 and (7 8)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:10

L10	1766621	(laceration or pathology or pathologies or scrape or injury or injuries or contusion or fracture or wound or abrasion or bruise or scab or sore or lesion or ulcer or chancre or rash or sepsis or septic or infection or burn or amputation)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:11
L11	77308	10 near5 (heal or healing or stimulating or stimulates or stimulation or promote or cure or curing or fostering or nurturing or facilitating or analgesic or anodyne or therapy or therapeutic or therapeutically)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:14
L12	2740	9 and 11	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:13
L13	40809	(1 4) near10 (heal or healing or stimulating or stimulates or stimulation or promote or cure or curing or fostering or nurturing or facilitating or analgesic or anodyne or therapy or therapeutic or therapeutically)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:14
L14	313	12 and 13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:14
L15	100	14 and @ad<"19981001"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 15:15

Set	Items	Description
S1	13837	(ELECTRIC? OR CONDUCTIV?) (3N) POTENTIAL?
S2	759192	(BRIDG? OR LATERAL?) (3N) (GRADIENT? OR POTENTIAL?) OR RESIS- TANC? OR RESISTIVE? OR OHM OR OHMS OR OHMIC? OR OHMAG?
S3	570013	CAPACITATIV? OR RELUCTANC? OR MICROVOLT? OR MILLIVOLT? OR - (MICRO OR MILLI) () VOLT? OR VOLT OR VOLTS OR VOLTAG?
S4	13107	MV OR ELECTROMOTIV? OR COULOMB?
S5	1102993	ADAPT? OR ALTER? OR MODIFI? OR MODIFY? OR MODULAT?
S6	2022612	CHANGE? OR CHANGING? OR STIMULAT? OR PROMOT? OR HEAL? OR L- OWER?
S7	2411486	REDUC? OR MOLLIF? OR ABAT? OR CURE? OR CURING? OR TRANSFOR- M?
S8	1678103	CONVERT? OR CONVERSION? OR ADJUST? OR VARY? OR VARIAB? OR - VARIAN?
S9	249527	ENCOURAG? OR FOMENT? OR ASSIST? OR HELP? OR AID OR AIDING
S10	257885	FOSTER? OR NURTUR? OR FACILITAT? OR BENEFIT? OR BENEFIC?
S11	214869	SUSTAIN? OR SUSTENAN? OR CULTIVAT? OR ACCELERAT?
S12	607450	EXPEDIT? OR SPEED? OR QUICKEN? OR SALUTAR?
S13	219737	ANALGES? OR PAIN? OR REPAIR? OR REPARAT?
S14	131150	ANODYN? OR TOPICAL? OR THERAP?
S15	261406	PATHOLOG? OR SCRAPE? OR INJUR? OR CONTUSION? OR WOUND? OR - FRACTUR? OR IRRITATION?
S16	533080	LACERAT? OR ABRASION? OR INCISION? OR CUT OR CUTS OR BRUIS? OR HEMATOM? OR HAEMATOM?
S17	57494	SCAB? OR LESION? OR ULCER? OR BLISTER? OR CHANCR? OR TRAUM- A? OR SORE? OR DECUBIT? OR RASH??
S18	268615	SEPSIS? OR SEPTIC? OR INFECTION? OR BURN? OR AMPUTAT? OR A- BNORMAL?
S19	6878	(TISSUE? OR SKIN? OR EPIDERM? OR DERM? OR AREA?) (3N) (HEALT- HY? OR UNAFFECT? OR UNINJUR? OR UNHARM? OR NORMAL?)
S20	1389375	SUBSTRAT? OR COVERING? OR PAD OR PADS OR DRESSING? OR BAND- AG? OR COMPRESS? OR NAPKIN?
S21	16362	BANDAID? OR BAND() (AID OR AIDS) OR PATCH? OR POULTIC?
S22	731748	FIBER? OR FIBRE? OR FIBRO? OR CLOTH? OR TEXTIL? OR WEAV? OR WOVE? OR NYLON?
S23	2577150	FABRIC? OR MATERIAL? OR GAUZ? OR MESH? OR KNIT? OR NETTIN? OR MATRIX? OR MATRIC?
S24	1601978	METAL OR METALS OR METALLIC? OR METALIC? OR SILVER OR AG OR ARGENT? OR CONDUCTIV?
S25	70791	BACTRICID? OR FUNGICID? OR ANTIFUNG? OR ANTIBIOT? OR BIOCI- D?
S26	75597	ANTISEPT? OR BACTERICID? OR ANTIMICROB? OR ANTIBACT?
S27	2469323	LINER? OR LAYER? OR SUBSTRAT? OR LAMINA? OR LAMELLA? OR SH- EET? OR FILM?
S28	155276	STRAT? OR PLY OR PLIES? OR PLIED? OR MULTILAYER? OR OVERLA- YER? OR SANDWICH? OR INTERSPERS?
S29	1636070	S1:S28 (5N) (METHOD? OR SYSTEM? OR PROCESS? OR PROCEDUR? OR - TECHNIQUE? OR MODE? ? OR COMPOSITION?)
S30	851259	IC=(A61F? OR A61N? OR B05D? OR B32B? OR A61N? OR A61K? OR - A61M?)
S31	62193	S1:S4 AND S5:S14 AND S15:S18
S32	27058	S31 AND S20:S23
S33	9478	S32 AND S24:S26
S34	5765	S33 AND S27:S28
S35	6	S34 AND S19
S36	17	S33 AND S19
S37	49	S32 AND S19
S38	1485	S34 AND S30
S39	777	S38 AND S29
S40	137	S39 AND S5:S14 (7N) S1:S4
S41	164	S39 AND S5:S14 (7N) S15:S18

S42 226 S32 AND S1
S43 110 S42 AND (S33 OR S34 OR S38 OR S39)
S44 397 S35:S37 OR S40:S41 OR S43
S45 513 S44 OR S42
S46 342 S45 AND S29
S47 435 S44 OR S46
S48 4622302 PR=(1998 OR 1997 OR 1996 OR 1995 OR 1994 OR 1993 OR 1992 OR
1991 OR 1990)
S49 3216114 PR=(1989 OR 1988 OR 1987 OR 1986 OR 1985 OR 1984 OR 1983 OR
1982 OR 1981)
S50 191 S47 AND S48:S49
S51 191 IDPAT (sorted in duplicate/non-duplicate order)
? show files
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200520
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?

Set	Items	Description
S1	13837	(ELECTRIC? OR CONDUCTIV?) (3N) POTENTIAL?
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S23	2577150	FABRIC? OR MATERIAL? OR GAUZ? OR MESH? OR KNIT? OR NETTIN? OR MATRIX? OR MATRIC?
S24	1601978	METAL OR METALS OR METALLIC? OR METALIC? OR SILVER OR AG OR ARGENT? OR CONDUCTIV?
S25	70791	BACTRICID? OR FUNGICID? OR ANTIFUNG? OR ANTIBIOT? OR BIOCI- D?
S26	75597	ANTISEPT? OR BACTERICID? OR ANTIMICROB? OR ANTIBACT?
S27	2469323	LINER? OR LAYER? OR SUBSTRAT? OR LAMINA? OR LAMELLA? OR SH- EET? OR FILM?
S28	155276	STRAT? OR PLY OR PLIES? OR PLIED? OR MULTILAYER? OR OVERLA- YER? OR SANDWICH? OR INTERSPERS?
S29	1636070	S1:S28 (5N) (METHOD? OR SYSTEM? OR PROCESS? OR PROCEDUR? OR - TECHNIQUE? OR MODE? ? OR COMPOSITION?)
S30	851259	IC=(A61F? OR A61N? OR B05D? OR B32B? OR A61N? OR A61K? OR - A61M?)
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S32	27058	S31 AND S20:S23
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S34	5765	S33 AND S27:S28
S35	6	S34 AND S19
S36	17	S33 AND S19
S37	49	S32 AND S19
S38	1485	S34 AND S30
S39	777	S38 AND S29
S40	137	S39 AND S5:S14 (7N) S1:S4
S41	164	S39 AND S5:S14 (7N) S15:S18

extended strategy

S42	226	S32 AND S1
S43	110	S42 AND (S33 OR S34 OR S38 OR S39)
S44	397	S35:S37 OR S40:S41 OR S43
S45	513	S44 OR S42
S46	342	S45 AND S29
S47	435	S44 OR S46
S48	4622302	PR=(1998 OR 1997 OR 1996 OR 1995 OR 1994 OR 1993 OR 1992 OR 1991 OR 1990)
S49	3216114	PR=(1989 OR 1988 OR 1987 OR 1986 OR 1985 OR 1984 OR 1983 OR 1982 OR 1981)
S50	191	S47 AND S48:S49
S51	191	IDPAT (sorted in duplicate/non-duplicate order)
S52	314	S39 AND S48:S49
S53	736	S38 AND S48:S49
S54	736	S52:S53
S55	93	S54 AND S1:S4(5N)S5:S8
S56	17	S54 AND S1:S4(5N)S9:S14
S57	122	S54 AND S5:S14(5N)S15:S19
S58	199	S55:S57
S59	108	S58 NOT S50
S60	108	IDPAT (sorted in duplicate/non-duplicate order)
?		

51/3,K/41

DIALOG(R)File 350:Derwent WPIX

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013065878 **Image available**

WPI Acc No: 2000-237750/200020

XRAM Acc No: C00-072410

New preparation comprising penetrants formed by charged single molecules or arrangements of molecules capable of penetrating the pores of a barrier, especially skin, when electrically driven

Patent Assignee: IDEA INNOVATIVE DERMAL APPLIKATIONEN GM (IDEA-N); IDEA AG (IDEA-N)

Inventor: CEVC G

Number of Countries: 082 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200012060	A1	20000309	WO 98EP5539	A	19980901	200020 B
AU 9897404	A	20000321	AU 9897404	A	19980901	200031
			WO 98EP5539	A	19980901	
BR 9816014	A	20010508	BR 9816014	A	19980901	200129
			WO 98EP5539	A	19980901	
EP 1107729	A1	20010620	EP 98951338	A	19980901	200135
			WO 98EP5539	A	19980901	
CN 1322129	A	20011114	CN 98814268	A	19980901	200217
			WO 98EP5539	A	19980901	
KR 2001106462	A	20011129	WO 98EP5539	A	19980901	200234
			KR 2001702688	A	20010228	
JP 2002523442	W	20020730	WO 98EP5539	A	19980901	200264
			JP 2000567180	A	19980901	
MX 2001002149	A1	20030301	WO 98EP5539	A	19980901	200413
			MX 20012149	A	20010228	

Priority Applications (No Type Date): WO 98EP5539 A 19980901

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200012060 A1 E 69 A61K-009/00

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9897404 A A61K-009/00 Based on patent WO 200012060

BR 9816014 A A61K-009/00 Based on patent WO 200012060

EP 1107729 A1 E A61K-009/00 Based on patent WO 200012060

Designated States (Regional): BE DE ES FR GB IT LU NL

CN 1322129 A A61K-009/00

KR 2001106462 A A61K-047/00

JP 2002523442 W 66 A61K-009/10 Based on patent WO 200012060

MX 2001002149 A1 A61K-009/00 Based on patent WO 200012060

Abstract (Basic):

... barrier pores is less than the average diameter of the penetrants, as the penetrants are **adaptable** to the pores.

... permeation through the pores after the penetrants have entered the pores. The average diameter and **adaptability** of the penetrants are selected and the penetrants and/or agents are provided with sufficient...

...and associated molecules through the pores in a barrier, defined in the novelty, where sufficient **electrical potential** is applied across

the barrier...

...of molecules through pores, and across barriers, and is especially used to transport drugs or **therapeutic** agents through the skin of humans and other mammals (claimed...

...The figure shows the time dependence of **material** and vesicle transport across a barrier with an applied **electrical potential** difference of 1.2 V which gives rise to the trans-barrier electrical current of...

Technology Focus:

... Preferred components: The average diameter, kind and amount of electrical charges and/or the **adaptability** of the electrically charged penetrants or the charged associations of penetrant and agent are selected...

...form of minute fluid droplets surrounded by a membrane-like coating of one or several **layers** of at least two kinds or forms of amphiphilic substances with a tendency to aggregate...

...density on a droplet is 0.05-0.5, most preferably 0.10-0.35 **Coulomb** /square meter. The weight amount of droplets in formulations for use on human or animal...

...Preferred **method** : Sufficient **electric potential** is applied across the barrier to effect the electrically driven transport of penetrants and associated...

...ensure that most of the resulting electrical current will flow across the barrier. The applied **electrical potential** value is chosen to be below 30V/cm², most preferably below 10 V/cm² of the barrier surface. The current driven across the barrier by the applied **electrical potential** is in the physiologically tolerable range, typically below 2 mA/cm², most preferably up to...

...permeants across the barrier. The transportation rate, is determined as a function of the applied **electrical potential** or of the **electrical** current across the barrier and the function found is used to optimize the preparation or...repeated use are employed to control the polarity, magnitude and/or time-dependence of applied **electric potential** . Different treatment areas are selected to control the transport. The barrier is pre-treated, by a non-occlusive application of suitable penetrants on the **modifiable** barrier, especially formed by human or animal skin, to increase the number or width of...

...Preferred conductor: The electrically **conductive material** on or of the electrodes comprises at least one **metal** , selected from precious **metals** such as **silver** and palladium and/or biocompatible salts or chemical complexes of these **metals** , preferably biocompatible chlorides, especially **silver** chloride...

...an adrenocorticostatic, an adrenolytic, an androgen or antiandrogen, an antiparasitic, an anabolic, an anaesthetic or **analgesic** , an analeptic, an antiallergic, antiarrhythmic, antiarteriosclerotic, antiasthmatic and/or bronchospasmodic, an **antibiotic** , antidepressive and/or antipsychotic, an antidiabetic, an antidote, antiemetic, antiepileptic, antifibrinolytic, anticonvulsive or anticholinergic, an...

...antimycotic, antimyasthenic, an agent against Morbus Alzheimer's or Parkinson's, an antiphlogistic, antipyretic, antirheumatic, **antiseptic**

, a respiratory analeptic or respiratory stimulant, a broncholytic, cardiotonic, chemotherapeutic, a coronary dilator, a cytostatic...

...agent, a sedating agent, a spasmolytic, tuberlostatic, urologic, a vasoconstrictor or vasodilator, a virustatic, a wound - healing substance, an inhibitor (antagonist) or **promoter** (agonist) for the activity of any of these agents or any combination of these agents.

International Patent Class (Main): **A61K-009/00** ...

... **A61K-009/10** ...

... **A61K-047/00**

International Patent Class (Additional): **A61K-009/127** ...

... **A61K-047/24** ...

... **A61K-047/34** ...

... **A61N-001/30**

51/3,K/68

DIALOG(R) File 350:Derwent WPIX

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012448460 **Image available**

WPI Acc No: 1999-254568/199921

Related WPI Acc No: 2003-903345

XRAM Acc No: C99-074447

XRPX Acc No: N99-189523

Healing and antimicrobial dressing with conductive metal layer

Patent Assignee: ARGENTUM RES INC (ARGE-N); ARGENTUM INT LLC (ARGE-N);

FLICK A B (FLIC-I)

Inventor: FLICK A B

Number of Countries: 079 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9915101	A2	19990401	WO 98US19689	A	19980922	199921 B
AU 9895734	A	19990412	AU 9895734	A	19980922	199934
US 6087549	A	20000711	US 97935026	A	19970922	200037
EP 1023003	A2	20000802	EP 98949403	A	19980922	200038
			WO 98US19689	A	19980922	
AU 742700	B	20020110	AU 9895734	A	19980922	200217
AU 200218820	A	20020418	AU 9895734	A	19980922	200234 N
			AU 200218820	A	20020228	
JP 2002516120	W	20020604	WO 98US19689	A	19980922	200239
			JP 2000512478	A	19980922	
BR 9815382	A	20020730	BR 9815382	A	19980922	200258
			WO 98US19689	A	19980922	
AU 768317	B	20031211	AU 9895734	A	19980922	200404 N
			AU 200218820	A	20020228	
US 20040049145	A1	20040311	WO 98US19689	A	19980922	200419
			US 2000531245	A	20000321	
			US 2003660209	A	20030911	
US 6861570	B1	20050301	WO 98US19689	A	19980922	200516
			US 2000531245	A	20000321	

Priority Applications (No Type Date): US 97935026 A 19970922; AU 200218820 A 20020228; US 2000531245 A 20000321; US 2003660209 A 20030911

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9915101	A2	E 80	A61F-000/00	
Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN				
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW				
AU 9895734	A			Based on patent WO 9915101
US 6087549	A		A61F-013/00	
EP 1023003	A2	E	A61F-002/00	Based on patent WO 9915101
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE				
AU 742700	B		B32B-027/06	Previous Publ. patent AU 9895734
				Based on patent WO 9915101
AU 200218820	A		B32B-027/06	Div ex application AU 9895734
				Div ex patent AU 742700
JP 2002516120	W	79	A61F-013/00	Based on patent WO 9915101
BR 9815382	A		B32B-027/06	Based on patent WO 9915101
AU 768317	B		B32B-027/06	Div ex application AU 9895734
				Previous Publ. patent AU 200218820

THIS APPLICATION

US 20040049145 A1	A61F-013/00	Div ex patent AU 742700 Cont of application WO 98US19689
US 6861570 B1	A61F-013/00	Cont of application US 2000531245 Cont of application WO 98US19689 Cont of patent US 6087549
Healing and antimicrobial dressing with conductive metal layer		

US 20040049145	A1	A61F-013/00	Cont of application WO 98US19689
			Cont of application US 2000531245
US 6861570	B1	A61F-013/00	Cont of application WO 98US19689
			Cont of patent US 6087549

Cont of application WO 98US19689

Cont of application US 2000531245

US 6861570	B1	A61F-013/00	Cont of application WO 98US19689
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A61F-013/00

Cont of application WO 98US19689

Cont of patent US 6087549

Healing and antimicrobial dressing with conductive metal layer

dressing with conductive metal

laver

Abstract (Basic):

... Dressing for promoting healing and pain relief, having a layer or layers of conductive material next to the pathological area, to alter the local electrodynamic flow processes and promote beneficial effects.

... Dressing for promoting healing and pain relief of the body of a living organism having a pathological condition, comprising at least one layer of conductive material having a resistance no greater than 1000 ohms /sq.cm, and which, when placed next to a portion of the body affected by the condition, alters the electrodynamic processes induced by the condition, to provide the above beneficial effects; optionally also having an antimicrobial effect by diffusion of the conductive material into the affected area...

```
... Antimicrobial ; i.e., antibacterial ; antifungal ; antiinflammatory;
analgesic .
```

...Electrical actions occur in the tissue at a site of **trauma** ; these cause migration of **antimicrobial** ions, particularly **silver** , from the **material** into the **trauma** . Further, the **antimicrobial** environment diminishes microbial caused inflammation and **pain** . Second, by separating the **conductive layers** by nonconductive, a **capacitative** field for the **injury** current is established, also **reducing pain** and **promoting healing** .

...The primary use of the device is to promote wound healing ; examples and extensions are abrasions , lacerations , puncture wounds , skin tears, dermal ulcers (vascular, venous, pressure, and diabetic), burns including sun burns , after surgical incisions , dentistry, or traumatic amputations , and as an external post labor and delivery vaginal pad . It can also be used as a wound drain. The antibacterial , antifungal , and analgesic properties are also mentioned; the last of value for scars, sprains and strains. The device can be manufactured in various forms; bandage strip, wrap, pad , or butterfly form, multilayer island and strip composite dressing , skin or teeth and gum covering , vaginal, rectal, nasal, and otitic canal suppository, feminine or baby napkin or insert, shoe orthotic, brace or brassiere liners , and catheter sheaths, as required for the above purposes...

...galvanic cell, as in prior art. The device is easy to replace and keeps the wound clean, moist, and with access to air, all **promoting healing**, without the need to wash off old creams or the like in replacement...

...The **dr**essing (110) is multilayer , with conductive (114), absorbent (116), semipermeable (118) and tape (112) layers . The **dr**essing is shown laid on the skin (5) with epidermis (7) overlying the dermis (9), with their various sub- layers , at the junction (11), together with a

wound as the space (19). Epidermal electrical sources (29) are shown conventionally, with the point of maximum **resistance** and potential drop shifted from point (39) to the **lower** point (37), **accelerating healing** .

Technology Focus:

... Preferred **Metals** : The **conductive layer** is at least partly **metal** ; suitable **metals** are **silver** , gold, aluminium, nickel, tin, stainless steel, platinum, and copper, notably **silver** . particularly **silver** . Alloys include aluminium with copper or magnesium, copper with gold, nickel, or palladium, gold or **silver** with palladium, gold and **silver** , iron and nickel, and ferromanganese. The **metal** can either be used as such for the **layer** , or as a coating on non- **conductive material** ; examples are cotton, wool, silk, rayon, glass wool, or polymer (see below). The **conductive layer** can also be a carbon composite or silicon **matrix** containing **metal** particles. The **materials** can also be used uncoated to provide non- **conductive fibres** .

...

...Preferred **materials** : The **conductive layer** can also be a **conductive** polymer or elastomer. Additional non- **conductive layer materials** (see above) are acrylic and thermoplastic polymers, e.g. **nylon** . These are used as the inorganic **materials** , to be coated to provide **conductive** , or left uncoated as non- **conductive fibres** for admixture...

... TEXTILES AND PAPER...

...Preferred **Process** : The **material** is flexible; in the form of **fibres** , which are either spun into filaments and formed into **fabrics** , or matted as a felt, all to be semi-permeable. Optionally, the **conductive material** can be as a plurality of **plies** of silvered **fabric** as above, with the **plies** in electrical contact with each other; or as a mixture of uncoated and conductor coated **fibres** . These **multilayers** either have uniform distribution, or more preferably have a metallised gradient, so that the highest ratio of metallised **fibres** is at the site of **trauma** , e.g., a **wound** . A triple **layer** , as a **laminated** structure, is exemplified in a claim. Typical ratios metallised/nonmetallised **fibres** are from 1:100 to 1:1, more preferably 1:50 to 1:4, most preferably 1:20 to 1:4. A typical **fibre** diameter is 1-30, more preferably 2-8, most preferably about 3 denier. Preferred Product: Absorptive and/or semipermeable **layers** may be affixed to the **conductive layer** , the former to control exudate, etc., while still retaining moisture at the site, and the latter to provide gas permeability, recognised as important in **healing** . A typical product, to be used as a **dressings** , and its induction of electrical **changes** , is shown in the figure; the parts are explained at the end, under Description of Drawings. As a coating **method** , **silver** is applied to the **fabric** by an autocatalytic electrodeless plating deposition process.

Extension Abstract:

... A **dressings material** was made from warp knitted **silver** plated **nylon** (SPN) and nonmetallic rayon (NMR) **fibres** , in 3 **layers** : (a) all 15 denier SPN; (b) 25% 3 denier SPN with 75% 3 denier NMR, 2 oz. **fabric** ; and (c) 5% 3 denier SPN with 95% NMR, 8 oz. **fabric** . A standard **antibacterial** zone inhibition test on agar was set up with samples of the **dressings material** , using broth cultures of E. coli, P. aeruginosa, E. faecalis, and S. aureus , running 72...

...All plates showed zones of inhibition; they were larger than the zones with single **layer** SPN. The examples also detail treatment and **healing** of a number of clinical cases.

Title Terms: **HEAL** ;

International Patent Class (Main): **A61F-000/00** ...

... **A61F-002/00** ...

... **A61F-013/00** ...

... **B32B-027/06**

International Patent Class (Additional): **A61F-015/00**

51/3,K/72

DIALOG(R)File 350:Derwent WPIX

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011854732 **Image available**

WPI Acc No: 1998-271642/199824

Related WPI Acc No: 1998-271635

XRAM Acc No: C98-084642

XRPX Acc No: N98-213379

Treating area of mammalian skin with ozone-containing gas - produced from hand-held apparatus containing high- voltage generator to create ozone-containing gas directed through nozzle towards skin, useful for e.g. acne, arthritis and wounds

Patent Assignee: RID RISKIN DEVICES LTD (RIDR-N)

Inventor: RISKIN E

Number of Countries: 076 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9810825	A1	19980319	WO 97IL303	A	19970911	199824 B
AU 9742178	A	19980402	AU 9742178	A	19970911	199833

Priority Applications (No Type Date): IL 119249 A 19960912

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9810825	A1	E	27	A61M-037/00	
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Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9742178	A	A61M-037/00	Based on patent WO 9810825
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... produced from hand-held apparatus containing high- voltage generator to create ozone-containing gas directed through nozzle towards skin, useful for e.g. acne, arthritis and wounds

...Abstract (Basic): hand-held apparatus generates the gas using a coronising electrode. It contains an electrically driven compressor or pump which provides gas at a pressure to the electrode and drives it after...

...useful for treating a human ailment such as acne, psoriasis, planter facitis, impetigo, ulcus cruris, wounds in diabetic patients, arthritis, bursitis, burns, tendovaginitis, herpes simplex, tendosinovitis, herpes zoster, sinusitis, warts and atopic dermatitis, or animal ailments such as arthritis, tendovaginitis, wounds, lick granuloma and excessive granulation (all claimed...

...stream onto a small affected body area for treatment, without carrying ozone onto the surrounding healthy skin. The apparatus is of a portable light weight and small dimension, permitting its positioning in....

...the administering personnel from being exposed to the danger of contact with parts carrying high voltage. The method is relatively simple and economical and can readily be used by any clinic, medical officer

...Title Terms: VOLTAGE ;

51/3,K/147

DIALOG(R)File 350:Derwent WPIX

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008368985 **Image available**

WPI Acc No: 1990-255986/199034

XRPX Acc No: N90-198352

Human ear treatment with modulated electric field - using lateral dielectric probes with conducting plate connected to voltage generator of modulated signal whose amplitude is adjustable

Patent Assignee: POISSON C (POIS-I)

Inventor: POISSON C

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2641182	A	19900706	FR 8817513	A	19881230	199034 B
CH 681961	A5	19930630	CH 894666	A	19891228	199330

Priority Applications (No Type Date): FR 8817513 A 19881230; FR 8915104 A 19891117

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

CH 681961 A5 A61N-001/40

Human ear treatment with modulated electric field...

...using lateral dielectric probes with conducting plate connected to voltage generator of modulated signal whose amplitude is adjustable

...Abstract (Basic): The appts. includes a **voltage** generator (1) that delivers at its output a triangular signal (U). The signal amplitude and period can be **adjusted**. A conductor (2) connects the generator output to a pair of probes (3) that have...

...end and defined by lateral walls (5) and a bottom (6) made of a dielectric **material**.. The bottom external surface is covered by a circular **conductive** plate (7) covered by a protection (8) that can be screwed in a threaded recess...

...extremities of an arch. The internal surface of the probe bottom is covered by a **film** (11) completely transparent to white light. A protective rubber sheath (12) covers the probe and...

...ADVANTAGE - Balances **electric potential** on ear surface. Allows insulation from external electrostatic influences and removes **pathological** symptoms. (10pp Dwg.No.1/6)

...Title Terms: **MODULATE** ;

International Patent Class (Main): **A61N-001/40**

International Patent Class (Additional): **A61F-011/00** ...

... **A61N-001/18**

60/3,K/1

DIALOG(R)File 350:Derwent WPIX

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015318920 **Image available**

WPI Acc No: 2003-379855/200336

Related WPI Acc No: 2000-422051

XRAM Acc No: C03-100904

XRPX Acc No: N03-303317

Treatment apparatus for wound , includes thermally- conductive bandage , heater, and attachment device

Patent Assignee: AUGUSTINE S D (AUGU-I); LELAND K J (LELA-I); ROCK J P

(ROCK-I); STAPF D E (STAP-I); AUGUSTINE MEDICAL INC (AUGU-N)

Inventor: AUGUSTINE S D; LELAND K J; ROCK J P; STAPF D E

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020183813	A1	20021205	US 9855597	A	19980406	200336 B
			US 2000493546	A	20000128	
			US 2002196875	A	20020715	
US 6585670	B2	20030701	US 9855597	A	19980406	200345
			US 2000493546	A	20000128	
			US 2002196875	A	20020715	

Priority Applications (No Type Date): US 9855597 A 19980406; US 2000493546 A 20000128; US 2002196875 A 20020715

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020183813	A1	23	A61F-007/00	Cont of application US 9855597 Cont of application US 2000493546 Cont of patent US 6071304 Cont of patent US 6436063
US 6585670	B2		A61F-007/00	Cont of application US 9855597 Cont of application US 2000493546 Cont of patent US 6071304 Cont of patent US 6436063

Treatment apparatus for wound , includes thermally- conductive bandage , heater, and attachment device

Abstract (Basic):

... A wound -treatment apparatus comprises a thermally- conductive bandage ; a heater in contact with the bandage over a wound -treatment area; and an attachment device for maintaining contact between the heater and bandage .

... A wound -treatment apparatus consists of a thermally- conductive bandage (102) and a heater (108). The bandage has first and second surfaces, with the first surface defining a wound -treatment area corresponding to a wound site (116) on a person's skin (118). The heater is used to maintain a temperature at the wound -treatment area. It is in contact with the second surface of the bandage over the wound -treatment area. An attachment device (114) is disposed between the heater and second surface of the bandage for retaining the heater on the bandage .

...For use in treating wounds .

...The inventive apparatus conveniently treats wound with heat therapy for a prolonged period, while allowing patient mobility. It is easy to

operate without impacting...

...The figure is an isometric view of the inventive wound -treatment apparatus applied to a wound on a person's body...

... Bandage (102...

... Wound site (116...

...Electrical resistance element (124

Technology Focus:

... Preferred Components: The second surface of the bandage comprises a flexible polymeric film . A layer of gauze , hydrogel, and hydrocolloids may be affixed to the polymeric layer . The heater includes a pouch, and water, chemically-reactive material and/or phase- change salt located within the pouch for generating heat. The heater may comprise a flexible layer and electrical resistance element (124) embedded in the flexible layer . The heater and bandage are flexible. The attachment device is a double-sided tape comprising a flexible polymeric film , and first and second adhesive layers disposed on respective first and second surfaces of the polymeric film . The attachment device comprises adhesive regions sized and spaced from one another so that the...

...Title Terms: WOUND ;

International Patent Class (Main): A61F-007/00

60/3,K/5

DIALOG(R)File 350:Derwent WPIX

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013204463 **Image available**

WPI Acc No: 2000-376336/200032

XRAM Acc No: C00-113768

XRPX Acc No: N00-282626

**Electrode, for medication administration, wound - healing , bio-signal
reception or electrostimulation device has resistive intermediate
layer between conductive layer and electrochemical interface layer**

Patent Assignee: LHD LAB HYGIENE & DIETETIQUE (LHDH-N); IOMED INC (IOME-N)

Inventor: MAILLEY P A N; MCADAMS E T; MIKLER C; ZHOU D M; MULLER P A N

Number of Countries: 091 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200027467	A1	20000518	WO 99FR2726	A	19991108	200032 B
FR 2785544	A1	20000512	FR 9814072	A	19981109	200032
AU 200010530	A	20000529	AU 200010530	A	19991108	200041
EP 1128867	A1	20010905	EP 99954082	A	19991108	200151
			WO 99FR2726	A	19991108	
AU 742396	B	20020103	AU 200010530	A	19991108	200209
JP 2002529158	W	20020910	WO 99FR2726	A	19991108	200274
			JP 2000580693	A	19991108	
US 6731987	B1	20040504	WO 99FR2726	A	19991108	200430
			US 2002831318	A	20020425	
EP 1128867	B1	20050126	EP 99954082	A	19991108	200510
			WO 99FR2726	A	19991108	
DE 69923468	E	20050303	DE 99623468	A	19991108	200517
			EP 99954082	A	19991108	
			WO 99FR2726	A	19991108	

Priority Applications (No Type Date): FR 9814072 A 19981109

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200027467	A1	F	23	A61N-001/04	
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Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

FR 2785544	A1			A61N-001/04	
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AU 200010530	A				Based on patent WO 200027467
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EP 1128867	A1	F		A61N-001/04	Based on patent WO 200027467
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI

AU 742396	B			A61N-001/04	Previous Publ. patent AU 200010530
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Based on patent WO 200027467

JP 2002529158	W		21	A61N-001/04	Based on patent WO 200027467
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US 6731987	B1			A61N-001/04	Based on patent WO 200027467
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EP 1128867	B1	F		A61N-001/04	Based on patent WO 200027467
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Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI
LU MC NL PT SE

DE 69923468	E			A61N-001/04	Based on patent EP 1128867
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Based on patent WO 200027467

**Electrode, for medication administration, wound - healing , bio-signal
reception or electrostimulation device has resistive intermediate
layer between conductive layer and electrochemical interface layer**

Abstract (Basic):

... electrode for current transfer through a patient's skin comprises a chemically inert and electrically **resistive** intermediate **layer** (6) between a **conductive layer** (5) for current supply to or collection from the skin and a consumable electrochemical interface **layer** (7).

... Used in an iontophoretic transdermal medication administration device, an electric **wound - healing** device, a human or animal bio-signal reception device or a transdermal muscular electrostimulation device...

...The intermediate **layer** imparts increased mechanical stability and electrochemical capacity (at least 168 micro-A.minute/cm²) than prior art electrodes to provide a lifetime compatible with the duration of **therapeutic** treatment using the electrode...

... **Substrate** (4...

... **Conductive layer** (5...

...Intermediate **layer** (6...

...Electrochemical interface **layer** (7...

...Insulating **layer** (8

Technology Focus:

... Preferred device: The intermediate **layer** (6) comprises a 1-100 (preferably 5-10) mum thick **layer** of fine carbon particles dispersed in a polymeric binder and exhibits anisotropic resistivity. The electrode also has a skin-contacting ion **conductive layer** (3) comprising a hydrophilic **layer** which is dry and non- **conductive** on application to a **wound** but which becomes **conductive** on **wound** seepage or which is made **conductive** with water and mineral salts before application. The edges of the **layers** (5, 6, 7) are covered with an insulating **layer** (8...

...The **conductive layer** (5) is in the form of a **silver** grid applied to an insulating **substrate** (4). The electrochemical interface **layer** (7) comprises **silver** or a **silver / silver** chloride mixture comprising 40-80 (preferably 60-70) wt.% AgCl and 60-20 (especially 40-30) wt.% **Ag** .

...Title Terms: **WOUND** ;

International Patent Class (Main): **A61N-001/04**

...International Patent Class (Additional): **A61N-001/30**

60/3,K/24

DIALOG(R)File 350:Derwent WPIX

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011970898 **Image available**

WPI Acc No: 1998-387808/199833

Related WPI Acc No: 1998-387807

XRAM Acc No: C98-117302

XRPX Acc No: N98-302414

**Iontophoretic device for applying pharmaceutical to patient via skin -
has electrode with varying resistance to protect more sensitive areas
of skin**

Patent Assignee: ELAN INT SERVICES LTD (ELAN-N)

Inventor: GROSS J; NITZAN Z; TSALS I

Number of Countries: 083 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9829158	A1	19980709	WO 97IE88	A	19971223	199833 B
ZA 9711593	A	19980826	ZA 9711593	A	19971223	199840 N
AU 9853378	A	19980731	AU 9853378	A	19971223	199849
EP 964721	A1	19991222	EP 97950356	A	19971223	200004
			WO 97IE88	A	19971223	

Priority Applications (No Type Date): US 9736514 P 19970128; US 9634363 P
19961226; ZA 9711593 A 19971223

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9829158 A1 E 34 A61N-001/30

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU
CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GM GR IE
IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

ZA 9711593 A 31 A61N-000/00

AU 9853378 A A61N-001/30 Based on patent WO 9829158

EP 964721 A1 E A61N-001/30 Based on patent WO 9829158

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE

... has electrode with varying resistance to protect more sensitive
areas of skin

...Abstract (Basic): An electrode for use in an iontophoretic device
comprises a flexible member with integral electrically **conductive
material** so that it exhibits varied electrical **resistance**. The
iontophoretic device includes a pair of these electrodes spaced apart.
Electrical current is introduced...

...The flexible member is paper with a polymer backing in contact with the
electrically **conductive material** which may be a **conductive ink**
including 6.5-12% carbon powder. The ink may be applied by a printing
process. The variation in resistivity may be achieved by **varying** the
thickness of the **material**. **Alternatively**, the **conductive
material** may include a number of **materials**, at least 1 having a
different electrical **conductivity**. The **conductive material** may be
built up of a number of **layers**, at least 1 of a different **material**.
The thickness of the **layers** may be different. The **lower layer** is
adjacent the **substrate** and has a **lower resistance** than the upper
layer. The flexible member may be moulded to conform to a part of the
body and...

...USE - The device can deliver a **therapeutic** or cosmetic agent to the skin of a subject. Cosmetic agents include vitamin A and/or E, or alpha hydroxy acid. Medicinal agents include tetracycline, other **antibiotics**, anti-acne medicaments or anti-toxins. It may also be used to **reduce** cellulite deposits using a caffeine extract, theophylline extract, ginkgo extract, silisium, magnesium and/or gola...

...ADVANTAGE - The variation in resistivity avoids harmful **burning** to sensitive skin areas...

...Title Terms: **VARY** ;

International Patent Class (Main): **A61N-000/00** ...

... **A61N-001/30**

International Patent Class (Additional): **A61N-001/04**

60/3,K/26

DIALOG(R)File 350:Derwent WPIX

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011945638 **Image available**

WPI Acc No: 1998-362548/199831

XRAM Acc No: C98-111541

XRPX Acc No: N98-283062

Wound healing device - with energy delivery surface positioned in interior of wound and coupled to film positioned around wound

Patent Assignee: VIDACARE INT INC (VIDA-N)

Inventor: NICHOLIC S; PARKER T L

Number of Countries: 079 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9826838	A1	19980625	WO 97US23589	A	19971218	199831 B
AU 9857116	A	19980715	AU 9857116	A	19971218	199846

Priority Applications (No Type Date): US 97991711 A 19971217; US 9633672 P 19961218

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9826838 A1 E 17 A61N-001/32

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9857116 A A61N-001/32 Based on patent WO 9826838

Wound healing device...

...with energy delivery surface positioned in interior of wound and coupled to film positioned around wound

...Abstract (Basic): A wound closure device closes and wound and promotes its healing. The device includes a conductive mesh (108) formed to be at least partially inserted into the wound. An energy source (114) is coupled to the mesh.

...

...Preferably the conductive mesh is bioabsorbable. It may be covered with a bioactive substance, e.g. collagen glue, which promotes wound healing. The energy source may be a battery strip. The energy applied to the wound may be RF energy, light, resistive heating, microwave or ultrasound...

...USE - The device is used to close a wound.

...

...ADVANTAGE - Delivery of the energy results in wound healing.

Title Terms: WOUND;

International Patent Class (Main): A61N-001/32

International Patent Class (Additional): A61N-001/04 ...

... A61N-001/05

60/3,K/50

DIALOG(R)File 350:Derwent WPIX

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009263913

WPI Acc No: 1992-391324/199248

XRAM Acc No: C01-039211

XRPX Acc No: N92-298485

Non-porous collagen gel for wound and burn treatment - has a low water content and is in the form of a thin sheet of compact transparent structure capable of absorbing 15 times its mass of fluids

Patent Assignee: EURORESEARCH SRL (EURO-N); EURORESEARCH SARL (EURO-N)

Inventor: BONFANTI G; FURLAN D; SCAPPATICCI G

Number of Countries: 021 Number of Patents: 012

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 514691	A2	19921125	EP 92107249	A	19920429	199248 B
CA 2064993	A	19921124	CA 2064993	A	19920402	199307
JP 5117162	A	19930514	JP 9298618	A	19920326	199324
CN 1066790	A	19921209	CN 92102332	A	19920401	199334
EP 514691	A3	19930331	EP 92107249	A	19920429	199350
IT 1249315	B	19950222	IT 91MI1423	A	19910523	199534
EP 514691	B1	19960103	EP 92107249	A	19920429	199606
DE 69207263	E	19960215	DE 92607263	A	19920429	199612
			EP 92107249	A	19920429	
US 5785983	A	19980728	US 92883362	A	19920515	199837
			US 93155785	A	19931123	
KR 229304	B1	19991101	KR 925043	A	19920327	200114
JP 3423330	B2	20030707	JP 9298618	A	19920326	200351
CA 2064993	C	20050118	CA 2064993	A	19920402	200509

Priority Applications (No Type Date): IT 91MI1423 A 19910523

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 514691	A2	E	6	C08J-005/18	
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Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE

CA 2064993	A			A61L-015/32	
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JP 5117162	A		5	A61K-037/12	
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CN 1066790	A			A61L-015/32	
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EP 514691	A3			C08J-005/18	
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IT 1249315	B			A61K-000/00	
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EP 514691	B1	E	7	C08J-005/18	
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Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE

DE 69207263	E			C08J-005/18	Based on patent EP 514691
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US 5785983	A			A61K-038/01	CIP of application US 92883362
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KR 229304	B1			A61K-038/01	
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JP 3423330	B2		5	A61K-038/17	Previous Publ. patent JP 5117162
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CA 2064993	C	E		A61L-015/32	
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Non-porous collagen gel for wound and burn treatment...

...has a low water content and is in the form of a thin sheet of compact transparent structure capable of absorbing 15 times its mass of fluids

...Abstract (Basic): A type I collagen gel film suitable for the therapeutic treatment of wounds and burns has an H2O content of no

more than 20 wt.%. and is in the form of a **sheet** of thickness 0.02-2mm of compact transparent structure, with a capacity for absorbing aq...

...A device suitable for filtering the collagen gel during its prepn. consists of a **metal mesh** of **mesh** size less than 0.1mm and has a puck of parallel plates in the region below the filter **mesh** for the purpose of conveying the filtrate as a continuous liquid **film** .

...

...USE/ADVANTAGE - The collagen gel **films** maintain the rapid cicatrization characteristics of collagen, at the same time preventing excessive evaporation. Product absorption is considerably longer than when lyophilised collagen (sponge) is used, therefore the gel **film** need not be replaced as frequently. Excidate loss is **lower** than when using lyophilised collagen. The bed of the **wound** can be constantly inspected without having to remove the gel **film** which is transparent.bl

...Abstract (Equivalent): A **sheet** of type I collagen gel, having molecular structure $(\alpha_1(I))_2\alpha_2(I)$, suitable for the **therapeutic** cicatrizing treatment of **wounds** and **burns** , said **sheet** being free from native collagen degradation products, having an H₂O content not exceeding 20% by weight, a uniform thickness, comprised between 0.02 and 2 mm, said **sheet** being characterised in that it is of transparent structure, it has an homogeneous structure, it...

...aqueous biological liquids limited to a maximum of 15 times its weight and a high **resistance** to enzymatic attack...

...Title Terms: **WOUND** ;

International Patent Class (Main): **A61K-000/00** ...

... **A61K-037/12** ...

... **A61K-038/01** ...

... **A61K-038/17**

International Patent Class (Additional): **A61K-009/70** ...

... **A61K-037/02**

60/3,K/59

DIALOG(R)File 350:Derwent WPIX

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008764605 **Image available**

WPI Acc No: 1991-268618/199137

XRPX Acc No: N91-205140

Electro- therapeutic device - passes DC current through high impedance living organism so that no excess current flows when resistance of living organism fluctuates

Patent Assignee: KOWA CO LTD (KOWA); YUASA BATTERY CO LTD (YUASA); YUASA CORP (YUASA)

Inventor: INAGI T; IZUCHI S; MURAMATSU T; MURATA K; NAGAI H; TAKEUCHI K

Number of Countries: 010 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 445742	A	19910911	EP 91103329	A	19910305	199137 B
CA 2037545	A	19910906				199147
JP 3254759	A	19911113	JP 9053153	A	19900305	199201
US 5376107 /	A	19941227	US 91664663	A	19910305	199506
			US 92965618	A	19921022	
EP 445742	B1	19970604	EP 91103329	A	19910305	199727
DE 69126341	E	19970710	DE 626341	A	19910305	199733
			EP 91103329	A	19910305	
ES 2104621	T3	19971016	EP 91103329	A	19910305	199748
KR 168443	B1	19990115	KR 913207	A	19910227	200038
CA 2037545	C	20010814	CA 2037545	A	19910305	200154

Priority Applications (No Type Date): JP 9053153 A 19900305

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 445742	A				
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Designated States (Regional): DE ES FR GB IT SE

US 5376107	A	7	A61N-001/30	Cont of application US 91664663
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EP 445742	B1 E	7	A61N-001/30	
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Designated States (Regional): DE ES FR GB IT SE

DE 69126341	E		A61N-001/30	Based on patent EP 445742
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ES 2104621	T3		A61N-001/30	Based on patent EP 445742
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KR 168443	B1		A61N-001/30	
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CA 2037545	C E		A61N-001/20	
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Electro- therapeutic device...

...passes DC current through high impedance living organism so that no excess current flows when resistance of living organism fluctuates

...Abstract (Basic): is provided for passing a DC electric current through a living organism by applying a **voltage** to a living organism. Such device consists of a battery with an internal **resistance** having high impedance so that any **changes** in the **resistance** value of the living organism can be disregarded. By doing so, no excessive flow of current is produced even if the **resistance** of the living organism fluctuates. As a means of providing an internal **resistance** a high impedance **material** is used. Other suitable organic solid electrolytes can also be used such as polyether polymers, random copolymers of ethylene oxide and propylene oxide. A **sheet** type battery utilising a solid electrolyte is desirable, because it can provide excellent flexibility and superior adhesion between the electrode **pad** and the skin...

...electrotherapeutic device prevents excess flow of current, avoids

leakage of liquid from battery and prevents **burns** and other side effects caused by localisation of current density. (8pp Dwg.No.1/4)

...Abstract (Equivalent): An electrotherapeutic device for passing an electric current through a living organism by applying a **voltage** to the living organism, which comprises a **sheet** -formed battery (5) having an electrolyte (8) therein, and two electrically **conductive pads** (1, 2) adhering to the skin in use, said battery (5) having a solid electrolyte in combination with a high internal **resistance** of at least 2k omega by which the overall **voltage** and current are kept within the range of 1 to 12V, and 0.005 to...

...Abstract (Equivalent): to drive a drug into the organism, comprises a battery, for providing a high internal **resistance** comprising a high electrical **resistance** solid electrolyte. The battery further comprises a first electrode and a second electrode which electrically connect to opposite sides of the solid electrolyte. A first contact pad is connected to the first electrode. The first contact **pad** has a first surface for contact to the organism. The first surface has a first surface area. The first contact **pad** holds a drug. Operation of the electrotherapeutic device administers the drug to the organism...

...A second contact **pad** is connected to the second electrode. The high internal **resistance** is provided by the solid electrolyte...

...Title Terms: **THERAPEUTIC** ;

International Patent Class (Main): **A61N-001/20** ...

... **A61N-001/30**

International Patent Class (Additional): **A61N-001/30**

Set	Items	Description
S1	174193	(ELECTRIC? OR CONDUCTIV?) (3N) POTENTIAL?
S2	3022040	(BRIDG? OR LATERAL?) (3N) (GRADIENT? OR POTENTIAL?) OR RESIS- TANC? OR RESISTIVE? OR OHM OR OHMS OR OHMIC? OR OHMAG?
S3	1272286	CAPACITATIV? OR RELUCTANC? OR MICROVOLT? OR MILLIVOLT? OR - (MICRO OR MILLI) () VOLT? OR VOLT OR VOLTS OR VOLTAG?
S4	706562	MV OR ELECTROMOTIV? OR COULOMB? OR IMPEDAN?
S5	9532908	PATHOLOG? OR SCRAPE? OR INJUR? OR CONTUSION? OR WOUND? OR - FRACTUR? OR IRRITATION?
S6	920147	LACERAT? OR ABRASION? OR INCISION? OR CUT OR CUTS OR BRUIS? OR HEMATOM? OR HAEMATOM?
S7	3041151	SCAB? OR LESION? OR ULCER? OR BLISTER? OR CHANCR? OR TRAUM- A? OR SORE? OR DECUBIT? OR RASH??
S8	6729513	SEPSIS? OR SEPTIC? OR INFECTION? OR BURN? OR AMPUTAT? OR A- BNORMAL?
S9	304041	(TISSUE? OR SKIN? OR EPIDERM? OR DERM? OR AREA?) (3N) (HEALT- HY? OR UNAFFECT? OR UNINJUR? OR UNHARM? OR NORMAL?)
S10	1550729	COVERING? OR PAD OR PADS OR DRESSING? OR BANDAG? OR COMPRE- SS? OR NAPKIN?
S11	401550	BANDAID? OR BAND() (AID OR AIDS) OR PATCH? OR POULTIC?
S12	4032386	FIBER? OR FIBRE? OR FIBRO? OR CLOTH? OR TEXTIL? OR WEAV? OR WOVE? OR NYLON?
S13	11110763	FABRIC? OR MATERIAL? OR GAUZ? OR MESH? OR KNIT? OR NETTIN? OR MATRIX? OR MATRIC?
S14	5683936	METAL OR METALS OR METALLIC? OR METALIC? OR SILVER OR AG OR ARGENT? OR CONDUCTIV? OR NONMETAL?
S15	1166112	BACTRICID? OR FUNGICID? OR ANTIFUNG? OR ANTIBIOT? OR BIOCI- D?
S16	639687	ANTISEPT? OR BACTERICID? OR ANTIMICROB? OR ANTIBACT?
S17	7528921	LINER? OR LAYER? OR SUBSTRAT? OR LAMINA? OR LAMELLA? OR SH- EET? OR FILM?
S18	2997704	STRAT? OR PLY OR PLIES? OR PLIED? OR MULTILAYER? OR OVERLA- YER? OR SANDWICH? OR INTERSPERS?
S19	182178	S1:S4 AND S5:S9 AND S10:S13
S20	11459	S19 AND S14:S16 (5N) S17:S18
S21	7488	S20 AND (METHOD? OR SYSTEM? OR PROCESS? OR PROCEDUR? OR TE- CHNIQUE? OR MODE? ? OR COMPOSITION?)
S22	11459	S20:S21
S23	7000	S22 AND PY<1999
S24	1548	S23 AND S14:S16 (5N) S17:S18
S25	59	S23 AND S1:S4 (5N) (ADAPT? OR ALTER? OR MODIFI? OR MODIFY? OR MODULAT?)
S26	162	S23 AND S1:S4 (5N) (CHANGE? OR CHANGING? OR STIMULAT? OR PRO- MOT? OR HEAL? OR LOWER?)
S27	166	S23 AND S1:S4 (5N) (REDUC? OR MOLLIF? OR ABAT? OR CURE? OR C- URING? OR TRANSFORM?)
S28	41	S23 AND S1:S4 (5N) (CONVERT? OR CONVERSION? OR ADJUST? OR VA- RY? OR VARIAB? OR VARIAN?)
S29	21	S23 AND S5:S9 (5N) (ENCOURAG? OR FOMENT? OR ASSIST? OR HELP? OR AID OR AIDING OR AIDED)
S30	15	S23 AND S5:S9 (5N) (FOSTER? OR NURTUR? OR FACILITAT? OR BENE- FIT? OR BENEFIC?)
S31	12	S23 AND S5:S9 (5N) (SUSTAIN? OR SUSTENAN? OR CULTIVAT? OR AC- CELERAT?)
S32	21	S23 AND S5:S9 (5N) (EXPEDIT? OR SPEED? OR QUICKEN? OR SALUTA- R?)
S33	38	S23 AND S5:S9 (5N) (ANALGES? OR PAIN? OR REPAIR? OR REPARAT?)
S34	48	S23 AND S5:S9 (5N) (ANODYN? OR TOPICAL? OR THERAP?)
S35	146	S24 AND S25:S34
S36	547	S25:S34
S37	8	S36 AND S25:S28 AND S29:S34

S38 205 S36 AND S10:S13(5N)S14:S16
 S39 220 S36 AND S1:S4(5N)S5:S9
 S40 113 S36 AND S5:S9(5N)S10:S13
 S41 411 S35 OR S37:S40
 S42 358 RD (unique items)
 ? show files
 File 2:INSPEC 1969-2005/Mar W3
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 (c) 2005 BIOSIS
 File 6:NTIS 1964-2005/Mar W3
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 File 99:Wilson Appl. Sci & Tech Abs 1983-2005/Feb
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 File 144:Pascal 1973-2005/Mar W3
 (c) 2005 INIST/CNRS
 File 155:MEDLINE(R) 1951-2005/Mar W4
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 File 248:PIRA 1975-2005/Mar W2
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 (c) 2005 RAPRA Technology Ltd
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
 (c) 1998 Inst for Sci Info
 File 481:DELPHEs Eur Bus 95-2005/Mar W4
 (c) 2005 ACFCI & Chambre CommInd Paris
 File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
 (c) 2002 The Gale Group
 ?

42/3,K/111 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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LATE

07286276 Genuine Article#: 146LF No. References: 27
**Title: The comparative efficacy of two antimicrobial barrier dressings :
In-vitro examination of two controlled release of silver dressings**
Author(s): Wright JB (REPRINT) ; Hansen DL; Burrell RE
Corporate Source: WESTAIM BIOMED CORP,10102,114 ST/FT
SASKATCHEWAN/AB/CANADA/ (REPRINT)
Journal: WOUNDS-A COMPENDIUM OF CLINICAL RESEARCH AND PRACTICE, 1998, V10
, N6, (NOV-DEC); P179-188
ISSN: 1044-7946 Publication date: 19981100
Publisher: HEALTH MANAGEMENT PUBLICATIONS INC, 950 WEST VALLEY RD, STE 2800,
WAYNE, PA 19087
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

**Title: The comparative efficacy of two antimicrobial barrier dressings :
In-vitro examination of two controlled release of silver dressings
, 1998**

Abstract: Modern wound dressings have been designed to promote wound healing by providing a moist wound environment. Concurrent with the development of these dressings, concern regarding the potential for increased wound colonization and subsequent infection under these dressings has also surfaced. As a result, manufacturers have developed a number of products that claim to help maintain a minimally contaminated wound bed. In an era of rapidly advancing antimicrobial resistance and related calls for the minimization of antibiotic use, silver is gaining increasing popularity as an effective antimicrobial agent. The most intriguing of the new silver-containing products utilize controlled silver release technologies. The antimicrobial efficacies of two of these products, one a film dressing and the other a silver-coated absorbent dressing, were compared against commonly encountered bacterial (including antibiotic-resistant strains) and yeast wound pathogens. The ability of the dressings to prevent bacterial growth after repeated challenge was also examined to derive an indication of the longevity of the dressings' efficacies. The nanocrystalline silver-coated dressing demonstrated a much faster bactericidal action against a broader spectrum of organisms in these in-vitro comparisons. These encouraging in...

...Identifiers-- WOUND - INFECTION ; OCCLUSIVE DRESSINGS ; RESISTANT BACTERIA; HOSPITALS

42/3,K/306 (Item 1 from file: 248)
DIALOG(R)File 248:PIRA
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Lat

00524918 Pira Acc. Num.: 20127845

Title: New antibacterial **acrylic** fibre

Authors: Stevanato R; Tedesco R

Source: Chem. Fibres Int. vol. 48, no. 6, Dec. 1998, pp 480, 482, 485

ISSN: 0340-3343

Publication Year: **1998**

Document Type: Journal Article

Language: English

Title: New antibacterial **acrylic** fibre

Publication Year: **1998**

Abstract: Montefibre of Venice, Italy, has researched an inorganic **substrate** for **silver** and zinc ions. The **substrate** eliminates previous problems connected with adding **antibacterial** properties to **fibres**, causing **reduced abrasion resistance** and spinnability. It has a particle size below 1 micron, and can be added in small amounts to give **antibacterial** protection without adversely affecting **fibre** properties. The **substrate** is a titaniumsilicate with high crystallinity, high specific area and good exchange ability. It can be added to the **fibre** by dispersal in the spinning solution, and adds permanent **antibacterial** properties. It can be blended with other **fibres**. Possible uses include hosiery, underwear and sportswear. (7 fig, 3 tab, 3 ref)

Descriptors: **ANTIBACTERIAL AGENT...**

... CLOTHING ; ...

...NEW FIBRE

Section Headings: Synthetic **Fibres** (7141)

Set	Items	Description
S1	15426	(ELECTRIC? OR CONDUCTIV?) (3N) POTENTIAL?
S2	1217600	(BRIDG? OR LATERAL?) (3N) (GRADIENT? OR POTENTIAL?) OR RESIS- TANC? OR RESISTIVE? OR OHM OR OHMS OR OHMIC? OR OHMAG?
S3	568412	CAPACITATIV? OR RELUCTANC? OR MICROVOLT? OR MILLIVOLT? OR - (MICRO OR MILLI) () VOLT? OR VOLT OR VOLTS OR VOLTAG?
S4	100425	MV OR ELECTROMOTIV? OR COULOMB? OR IMPEDAN?
S5	2954643	PATHOLOG? OR SCRAPE? OR INJUR? OR CONTUSION? OR WOUND? OR - FRACTUR? OR IRRITATION?
S6	5644141	LACERAT? OR ABRASION? OR INCISION? OR CUT OR CUTS OR BRUIS? OR HEMATOM? OR HAEMATOM?
S7	1071819	SCAB? OR LESION? OR ULCER? OR BLISTER? OR CHANCR? OR TRAUM- A? OR SORE? OR DECUBIT? OR RASH??
S8	2655468	SEPSIS? OR SEPTIC? OR INFECTION? OR BURN? OR AMPUTAT? OR A- BNORMAL?
S9	89127	(TISSUE? OR SKIN? OR EPIDERM? OR DERM? OR AREA?) (3N) (HEALT- HY? OR UNAFFECT? OR UNINJUR? OR UNHARM? OR NORMAL?)
S10	2873770	COVERING? OR PAD OR PADS OR DRESSING? OR BANDAG? OR COMPRE- SS? OR NAPKIN?
S11	466306	BANDAID? OR BAND() (AID OR AIDS) OR PATCH? OR POULTIC?
S12	4465506	FIBER? OR FIBRE? OR FIBRO? OR CLOTH? OR TEXTIL? OR WEAV? OR WOVE? OR NYLON?
S13	11444522	FABRIC? OR MATERIAL? OR GAUZ? OR MESH? OR KNIT? OR NETTIN? OR MATRIX? OR MATRIC?
S14	6385089	METAL OR METALS OR METALLIC? OR METALIC? OR SILVER OR AG OR ARGENT? OR CONDUCTIV? OR NONMETAL?
S15	274719	BACTRICID? OR FUNGICID? OR ANTIFUNG? OR ANTIBIOT? OR BIOCI- D?
S16	109286	ANTISEPT? OR BACTERICID? OR ANTIMICROB? OR ANTIBACT?
S17	6094253	LINER? OR LAYER? OR SUBSTRAT? OR LAMINA? OR LAMELLA? OR SH- EET? OR FILM?
S18	13615147	STRAT? OR PLY OR PLIES? OR PLIED? OR MULTILAYER? OR OVERLA- YER? OR SANDWICH? OR INTERSPERS?
S19	233953	S1:S4 AND S5:S9 AND S10:S13
S20	46592	S19 AND S14:S16 AND S17:S18
S21	43886	S20 AND (METHOD? OR SYSTEM? OR PROCESS? OR PROCEDUR? OR TE- CHNIQUE? OR MODE? ? OR COMPOSITION?)
S22	46592	S20:S21
S23	21549	S22 AND PY<1999
S24	4069	S23 AND S14:S16(5N) S17:S18
S25	730	S23 AND S1:S4(5N) (ADAPT? OR ALTER? OR MODIFI? OR MODIFY? OR MODULAT?)
S26	2311	S23 AND S1:S4(5N) (CHANGE? OR CHANGING? OR STIMULAT? OR PRO- MOT? OR HEAL? OR LOWER?)
S27	1864	S23 AND S1:S4(5N) (REDUC? OR MOLLIF? OR ABAT? OR CURE? OR C- URING? OR TRANSFORM?)
S28	946	S23 AND S1:S4(5N) (CONVERT? OR CONVERSION? OR ADJUST? OR VA- RY? OR VARIAB? OR VARIAN?)
S29	1028	S23 AND S5:S9(5N) (ENCOURAG? OR FOMENT? OR ASSIST? OR HELP? OR AID OR AIDING OR AIDED)
S30	452	S23 AND S5:S9(5N) (FOSTER? OR NURTUR? OR FACILITAT? OR BENE- FIT? OR BENEFIC?)
S31	349	S23 AND S5:S9(5N) (SUSTAIN? OR SUSTENAN? OR CULTIVAT? OR AC- CELERAT?)
S32	422	S23 AND S5:S9(5N) (EXPEDIT? OR SPEED? OR QUICKEN? OR SALUTA- R?)
S33	990	S23 AND S5:S9(5N) (ANALGES? OR PAIN? OR REPAIR? OR REPARAT?)
S34	739	S23 AND S5:S9(5N) (ANODYN? OR TOPICAL? OR THERAP?)
S35	146	S24 AND S25:S28 AND S29:S34
S36	119	RD (unique items)

? show files

File 9:Business & Industry(R) Jul/1994-2005/Mar 31
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(c) 2005 The Dialog Corp.
File 47:Gale Group Magazine DB(TM) 1959-2005/Apr 01
(c) 2005 The Gale group
File 98:General Sci Abs/Full-Text 1984-2004/Dec
(c) 2005 The HW Wilson Co.
File 135:NewsRx Weekly Reports 1995-2005/Mar W4
(c) 2005 NewsRx
File 148:Gale Group Trade & Industry DB 1976-2005/Apr 01
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File 649:Gale Group Newswire ASAP(TM) 2005/Mar 24
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(c) 1999 Bridge
File 810:Business Wire 1986-1999/Feb 28
(c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
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Set	Items	Description
S1	244	AU=(FLICK B? OR FLICK, B? OR FLICK A? OR FLICK, A?)
S2	0	(BART? OR BARTHOL? OR BARTHOLOMEW?) (3N) FLICK
S3	244	S1:S2
S4	169	S3 AND PY<1999
S5	110	RD (unique items)

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File 2:INSPEC 1969-2005/Mar W3
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File 399:CA SEARCH(R) 1967-2005/UD=14214
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File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
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5/3,K/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2005 BIOSIS. All rts. reserv.

0013534196 BIOSIS NO.: 200200127707
Iontopheretic system for stimulation of tissue healing and regeneration
AUTHOR: Becker R O; **Flick A B** ; Becker A J
AUTHOR ADDRESS: Box 278, Erie Canal Rd., Lowville, N.Y. 13367, USA**USA
JOURNAL: Official Gazette of the United States Patent and Trademark Office
Patents 1214 (5): p5180 Sept. 29, 1998 1998
MEDIUM: print
PATENT NUMBER: US 5814094 PATENT DATE GRANTED: Sept. 29, 1998 19980929
PATENT CLASSIFICATION: 607-50 PATENT COUNTRY: USA
ISSN: 0098-1133
DOCUMENT TYPE: Patent
RECORD TYPE: Citation
LANGUAGE: English

...AUTHOR: **Flick A B**
1998

5/3,K/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2005 BIOSIS. All rts. reserv.

0013419341 BIOSIS NO.: 200200012852
Electrical therapeutic apparatus
AUTHOR: **Flick A B**
AUTHOR ADDRESS: P.O. Box 640, Highway 441 So., Demorest, Ga. 30535, USA**
USA
JOURNAL: Official Gazette of the United States Patent and Trademark Office
Patents 1169 (3): p1619 Dec. 20, 1994 1994
MEDIUM: print
PATENT NUMBER: US 5374283 PATENT DATE GRANTED: Dec. 20, 1994 19941220
PATENT CLASSIFICATION: 607-46 PATENT COUNTRY: USA
ISSN: 0098-1133
DOCUMENT TYPE: Patent
RECORD TYPE: Citation
LANGUAGE: English

AUTHOR: **Flick A B**
1994

Set	Items	Description
S1	11	AU=(FLICK B? OR FLICK, B? OR FLICK A? OR FLICK, A?)
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S3	42	S1:S2
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File 9:Business & Industry(R) Jul/1994-2005/Mar 30
(c) 2005 The Gale Group

File 15:ABI/Inform(R) 1971-2005/Mar 31
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File 16:Gale Group PROMT(R) 1990-2005/Apr 01
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File 20:Dialog Global Reporter 1997-2005/Apr 01
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File 47:Gale Group Magazine DB(TM) 1959-2005/Apr 01
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File 98:General Sci Abs/Full-Text 1984-2004/Dec
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File 135:NewsRx Weekly Reports 1995-2005/Mar W4
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File 148:Gale Group Trade & Industry DB 1976-2005/Apr 01
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File 149:TGG Health&Wellness DB(SM) 1976-2005/Mar W3
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File 160:Gale Group PROMT(R) 1972-1989
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File 369:New Scientist 1994-2005/Mar W2
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File 370:Science 1996-1999/Jul W3
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File 441:ESPICOM Pharm&Med DEVICE NEWS 2005/Feb W2
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File 444:New England Journal of Med. 1985-2005/Mar W4
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File 484:Periodical Abs Plustext 1986-2005/Mar W4
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File 570:Gale Group MARS(R) 1984-2005/Apr 01
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File 609:Bridge World Markets 2000-2001/Oct 01
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File 610:Business Wire 1999-2005/Apr 01
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File 646:Consumer Reports 1982-2005/Mar
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File 649:Gale Group Newswire ASAP(TM) 2005/Mar 24
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File 809:Bridge World Markets News 1989-1999/Dec 31
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File 810:Business Wire 1986-1999/Feb 28
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5/3,K/15 (Item 2 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2005 The Gale Group. All rts. reserv.

01746582 Supplier Number: 42876345 (USE FORMAT 7 FOR FULLTEXT)

RESEARCH - Silver helps the skin to heal

Medical Textiles, pN/A

April, 1992

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 193

... nerve cells, that are necessary to heal the wound.

The researchers - doctors Robert Becker and **Bart Flick** - were already aware that silver could be used as a bacteriostat (bacterial growth inhibitor) on...

19920401

5/3,K/16 (Item 3 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2005 The Gale Group. All rts. reserv.

01690313 Supplier Number: 42709921 (USE FORMAT 7 FOR FULLTEXT)

SILVER HELPS TO HEAL SEVERE SKIN WOUNDS

Biomedical Materials, pN/A

Feb, 1992

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 182

... and form cells, including nerve cells, necessary to heal the wound.

Doctors Robert Becker and **Bart Flick** at the Medical Center already knew that silver could be used as a 'bacteriostat' - a...

19920201

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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L2	50	flick-a\$.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 09:42
L3	58	1 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/04/01 09:42

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WO 2003090654 A DERWENT
US 6087549 A DERWENT
US 5814094 A DERWENT
US 5374283 A DERWENT

THIS
APPLICATION



US 20040030276A1

(19) **United States**

(12) **Patent Application Publication**
Flick

(10) **Pub. No.: US 2004/0030276 A1**

(43) **Pub. Date: Feb. 12, 2004**

(54) **CONDUCTIVE WOUND DRESSINGS AND METHODS OF USE**

(60) Provisional application No. 60/374,769, filed on Apr. 23, 2002.

(76) **Inventor: Bart A. Flick, Lakemont, GA (US)**

Publication Classification

Correspondence Address:
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ATLANTA, GA 30339-5948 (US)

(51) **Int. Cl.⁷ A61F 13/00; A61F 15/00**

(52) **U.S. Cl. 602/41**

(57) **ABSTRACT**

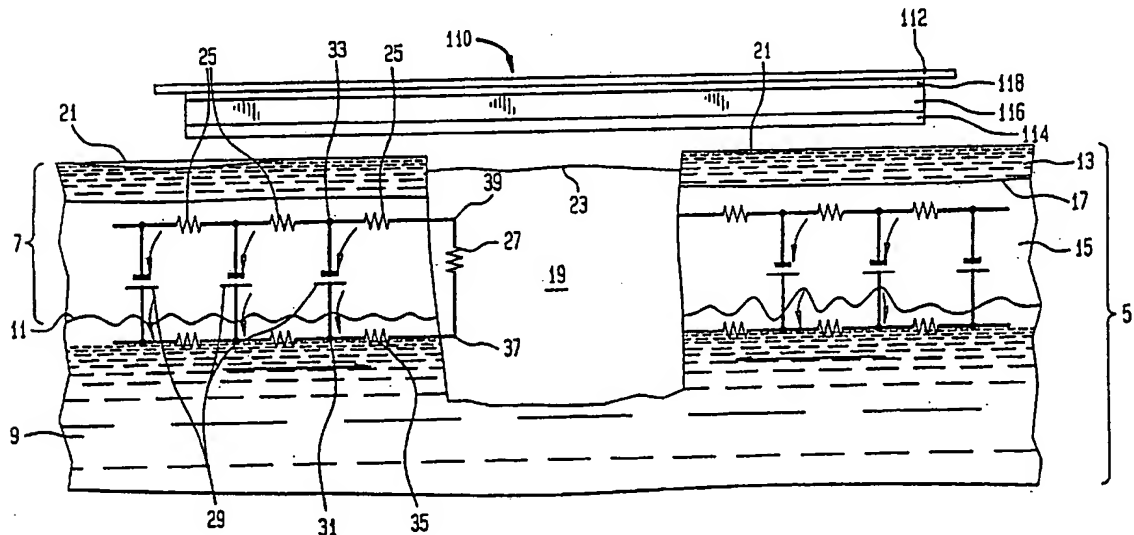
(21) **Appl. No.: 10/421,370**

(22) **Filed: Apr. 23, 2003**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/531,245, filed on Mar. 21, 2000, which is a continuation of application No. PCT/US98/19689, filed on Sep. 22, 1998.

Wound treatment dressings comprising combinations of at least one conductive layer, at least one absorbent layer or a moisture regulation layer, and methods of making and methods of use are disclosed for treatment of wounds in humans and animals. The novel dressings aid in healing by helping restore the transepithelial potential of the skin, providing a functional anti-microbial barrier, and allowing for regulation of the moisture content of the wound without disturbing the wound.





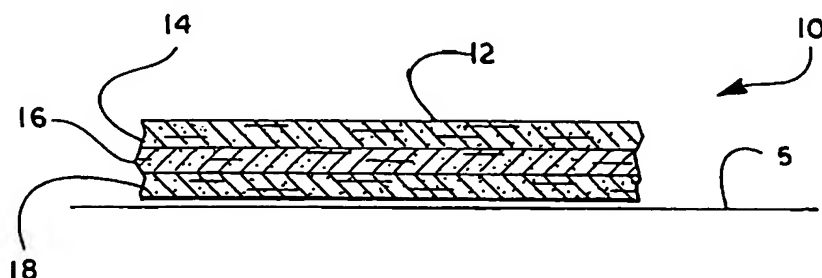
US006861570B1

(12) **United States Patent**
Flick(10) **Patent No.: US 6,861,570 B1**
(45) **Date of Patent: Mar. 1, 2005**(54) **MULTILAYER CONDUCTIVE APPLIANCE
HAVING WOUND HEALING AND
ANALGESIC PROPERTIES**(76) **Inventor: A. Bart Flick, 1 Lake Rabun Rd.,
Lakemont, GA (US) 30552**(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.(21) **Appl. No.: 09/531,245**(22) **Filed: Mar. 21, 2000****Related U.S. Application Data**(63) Continuation of application No. PCT/US98/19689, filed on
Sep. 22, 1998, now Pat. No. 6,087,549.(51) **Int. Cl.⁷ A61F 13/00**(52) **U.S. Cl. 602/41; 428/103; 428/294.1;
602/48**(58) **Field of Search 602/41-59; 604/304,
604/368; 428/412, 103**(56) **References Cited****U.S. PATENT DOCUMENTS**3,326,213 A 6/1967 Gallagher
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Electrical Currents Emerging During The Regeneration of
Amputated Finger Tips In Children", Clinical Phys. Physi-
ological Measurements, 1980, vol. 1, pp. 87-89.**Primary Examiner—Kim M. Lewis**(74) **Attorney, Agent, or Firm—Thomas, Kayden,
Horstemeyer & Risley, LLP; Charles Vorndran**(57) **ABSTRACT**

A dressing for promoting healing and pain relief of the body of a living organism having a pathologic condition has at least one layer of conductive material having a resistance no greater than 1000 Ω/cm^2 . When placed proximate a portion of the body of the living organism suffering from the pathologic condition, the dressing alters the electrodynamic processes occurring in conjunction with said pathologic condition to promote healing and pain relief in the living organism. When used as a wound dressing, the conductive material is placed in contact with tissue around the periphery of the wound and with the wound, lowering the electrical potential and resistance of the wound and increasing the wound current. In an exemplary embodiment, the conductive material is a multi-ply nylon fabric plated with silver by an autocatalytic electroless plating process and with the plies in electrical continuity. The dressing provides an antimicrobial and analgesic effect. The dressing may be provided for numerous applications and may include other layers such as an absorbent layer, a semi-permeable layer and additional layer of conductor material. Multilaminar embodiments of the present invention exhibit conductive material concentration gradients and, potentially, a capacitive effect when sequential conductor layers are insulated by intervening layers.

19 Claims, 20 Drawing Sheets



US006087549A

United States Patent [19]
Flick

[11] **Patent Number:** **6,087,549**
 [45] **Date of Patent:** **Jul. 11, 2000**

[54] **MULTILAYER LAMINATE WOUND DRESSING**

[75] **Inventor:** A. Bart Flick, Lakemont, Ga.

[73] **Assignee:** Argentum International, Roswell, Ga.

[21] **Appl. No.:** 08/935,026

[22] **Filed:** Sep. 22, 1997

[51] **Int. Cl.⁷** A61F 13/00

[52] **U.S. Cl.** 602/41; 428/103; 428/294.1

[58] **Field of Search** 602/41; 428/412,
 428/103, 294.1

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Westaim Biomedical Commercial Literature, bearing 1998 Copyright notice and product label bearing Acticoat®.

Primary Examiner—Michael A. Brown

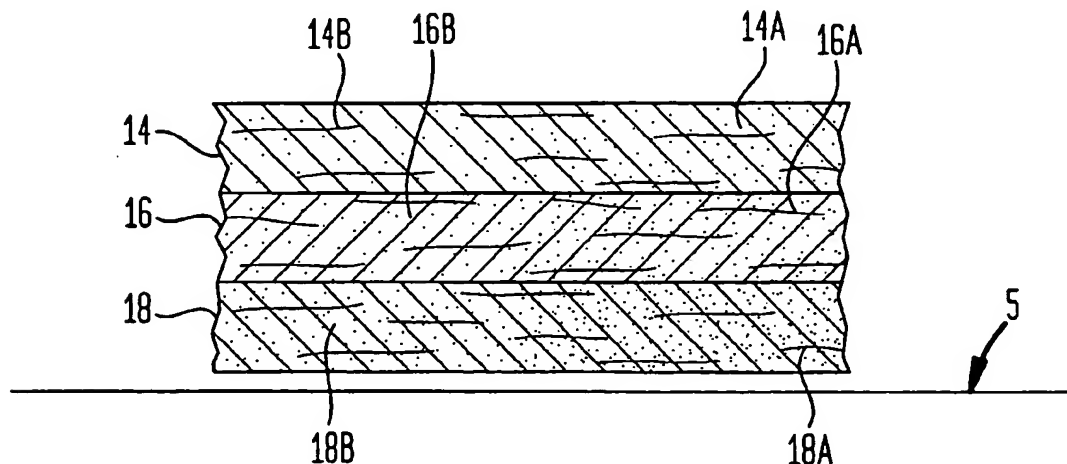
Assistant Examiner—Kelvin Hart

Attorney, Agent, or Firm—Selitto & Associates

[57] **ABSTRACT**

A multilayer laminate wound dressing comprising a plurality of layers of preferably silver or silver-coated fibers in a woven fabric alternating with layers of nonconductive, preferably nonmetallic, fabric. Each layer preferably contains a different ratio of metalized to nonmetalized fibers. The metalized fibers are preferably made of or coated with silver. The dressing promotes healing by stimulating cellular de-differentiation, followed by cellular proliferation. The dressing also has antibacterial, antifungal and analgesic properties.

24 Claims, 13 Drawing Sheets





US005814094A

United States Patent [19][11] **Patent Number:** **5,814,094****Becker et al.**[45] **Date of Patent:** **Sep. 29, 1998****[54] IONTOPHERETIC SYSTEM FOR STIMULATION OF TISSUE HEALING AND REGENERATION**

[76] **Inventors:** Robert O. Becker, Box 278, Erie Canal Rd., Lowville, N.Y. 13367; A. Bartholomew Flick, 1 Lake Rabun Rd., P.O. Box 2088, Lakemont, Ga. 30552; Adam J. Becker, 2 Chateaux Cir., Apt. 2L, Scarsdale, N.Y. 10583

[21] **Appl. No.:** 623,046[22] **Filed:** Mar. 28, 1996[51] **Int. Cl.⁶** A61M 5/32[52] **U.S. Cl.** 607/50; 604/20[58] **Field of Search** 607/50; 604/20**[56] References Cited****U.S. PATENT DOCUMENTS**

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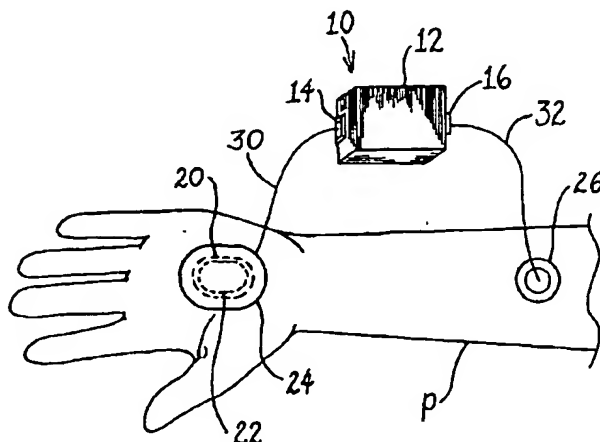
Primary Examiner—Scott Getzow

Attorney, Agent, or Firm—Maria Reichmanis

[57] ABSTRACT

An iontophoretic system for promoting tissue healing processes and inducing regeneration. The system includes a device and a method, a composition, and methods for making the composition in vitro and in vivo. The system is implemented by placing a flexible, silver-containing anode in contact with the wound, placing a cathode on intact skin near the anode, and applying a wound-specific DC voltage between the anode and the cathode. Electrically-generated silver ions from the anode penetrate into the adjacent tissues and undergo a sequence of reactions leading to formation of a silver-collagen complex. This complex acts as a biological inducer to cause the formation in vivo of an adequate blastema to support regeneration.

42 Claims, 11 Drawing Sheets
(7 of 11 Drawing Sheet(s) Filed in Color)





US005374283A

United States Patent [19]

Flick

[11] Patent Number: 5,374,283

[45] Date of Patent: Dec. 20, 1994

[54] ELECTRICAL THERAPEUTIC APPARATUS

[76] Inventor: A. Bart Flick, P.O. Box 640,
Highway 441 So., Demorest, Ga.
30535

[21] Appl. No.: 159,546

[22] Filed: Dec. 1, 1993

[51] Int. CL⁵ A61N 1/32[52] U.S. Cl. 607/46; 607/152;
128/644[58] Field of Search 607/115, 140, 144, 152,
607/46; 128/644, 640, 639

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Primary Examiner—William E. Kamm

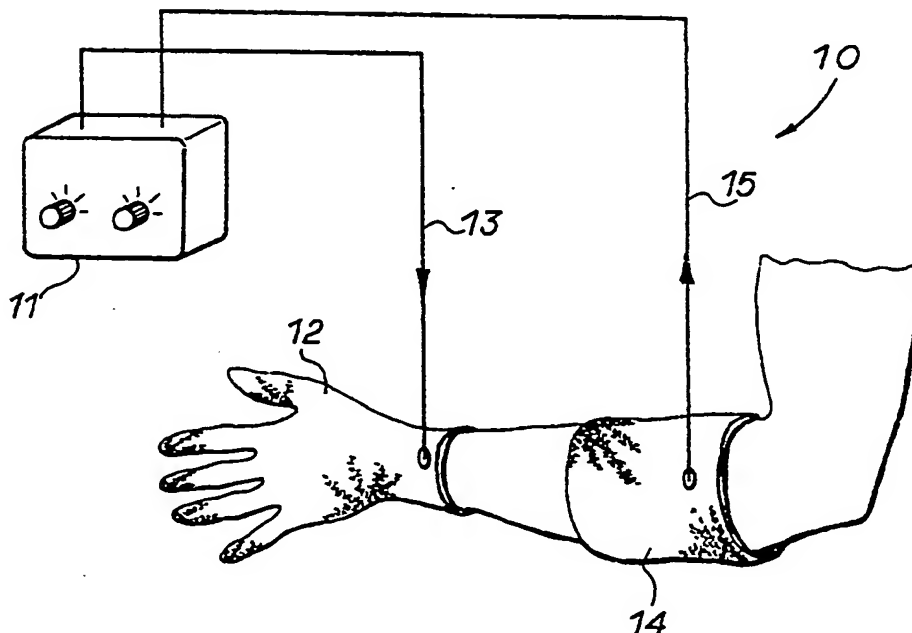
Assistant Examiner—Scott M. Getzow

Attorney, Agent, or Firm—Kennedy & Kennedy

[57] ABSTRACT

An electrical therapeutic apparatus (10) for the treatment of body pain and edema. The apparatus has an electrical pulse producing device (11) coupled to wrap (12) by conductor (13). The wrap is comprised of nylon coated with silver which forms an electrode. A second electrode (14) is coupled by conductors (15) to the device.

4 Claims, 3 Drawing Sheets



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60/374,769 **23 April 2002 (23.04.2002)** **US**
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(54) Title: **CONDUCTIVE WOUND DRESSINGS AND METHODS OF USE**

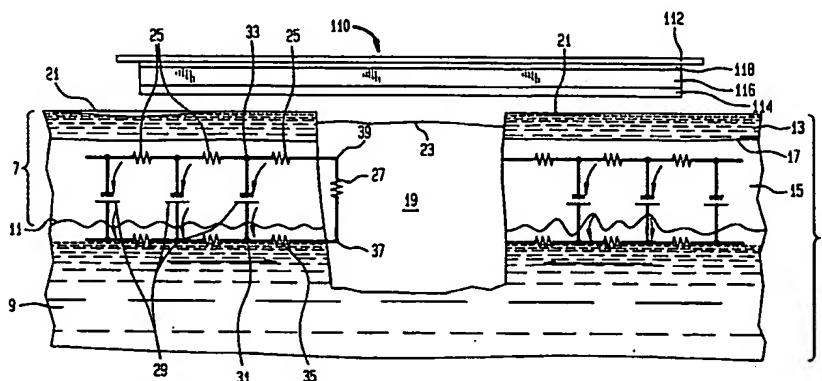
(57) Abstract: Wound treatment dressings (110) comprising combinations of at least one conductive layer (114), at least one absorbent layer (116) or a moisture regulation layer (118), and methods of making and methods of use are disclosed for treatment of wounds in humans and animals: The novel dressings (110) aid in healing by helping restore the transepithelial potential of the skin, providing a functional anti-microbial barrier, and allowing for regulation of the moisture content of the wound without disturbing the wound.



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(54) Title: MULTILAYER CONDUCTIVE APPLIANCE HAVING WOUND HEALING AND ANALGESIC PROPERTIES



(57) Abstract

A dressing (110) for promoting healing and pain relief of the body of a living organism having a pathologic condition has at least one layer of conductive material (114) having a resistance no greater than 1000 Ω/cm^2 . When placed proximate a portion of the body of the living organism suffering from the pathologic condition (5), the dressing alters the electrodynamic processes occurring in conjunction with said pathologic condition to promote healing and pain relief in the living organism. When used as a wound dressing, the conductive material (114) is placed in contact with tissue (21) around the periphery of the wound and with the wound (19), lowering the electrical potential (23) and resistance (27) of the wound (19) and increasing the wound current. In an exemplary embodiment, the conductive material (114) is a multi-ply nylon fabric (194) plated with silver by an autocatalytic electroless plating process and with the plies in electrical continuity. The dressing provides an antimicrobial and analgesic effect. The dressing (110) may be provided for numerous applications (130, 150, 160, 170, 180, 184, 200, 210, 220, 230) and may include other layers such as an absorbent layer (116), a semi-permeable layer (118) and additional layer of conductor material (129). Multilaminar embodiments of the present invention (20) exhibit conductive material concentration gradients and, potentially, a capacitive effect when sequential conductor layers (24, 26, 28) are insulated by intervening layers (22).



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Wound management in an era of increasing bacterial antibiotic resistance: A role for topical «silver» treatment^{*1}

Parts of this work were presented at the Symposium on Advanced Wound Care and Medical Research Forum on Wound Repair, April 18-22, 1998, Miami Beach, Fla.

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0196-6553/98 \$5.00 + 0 17/46/93527 Available online 27 April 2004.


Abstract

Background: Antibiotic-resistant bacteria represent an increasing concern in wound infections. Wound colonization with these organisms normally results in aggressive management of the wound complicated by a greatly limited choice of therapeutic antibiotics. «Silver» and other noble metals are recognized as potential allies in combating these organisms in wounds. **Methods:** Three types of topical «silver» applications were tested to determine their bactericidal efficacies against clinical isolates of antibiotic-resistant organisms. The «silver»-based applications represent 3 methods of applying «silver» to wounds: as a liquid («silver» nitrate), incorporated in a cream («silver» sulfadiazine) and as a «dressing» coating («silver»-coated «dressings»). The reduction in the viable bacterial population recovered from test articles after exposure to «silver» provided a comparative measure of the bactericidal efficacies of these «silver» applications. **Results:** All of the products demonstrated an ability to reduce the number of viable bacteria. However, the methods varied in their efficacy against antibiotic-resistant bacteria, with the «silver»-coated «dressing» being the most efficacious and «silver» nitrate the least efficacious. **Conclusions:** «Silver» was demonstrated to be effective at killing the antibiotic-resistant strains tested. The «silver»-coated «dressing» was particularly rapid at killing the tested bacteria and was effective against a broader range of bacteria. «Silver» may be a useful prophylactic or

therapeutic agent for the prevention of wound colonization by organisms that impede healing, including antibiotic-resistant bacteria. (*AJIC Am J Infect Control* 1998;26:572-7)

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